

Delete claims 1-12 and substitute therefor new claims 54-59 as follows:

sub 1 --54. A DNA sequence encoding a polypeptide in accordance with claim 51.

sub 11 --55. A DNA sequence encoding a polypeptide that binds to TRAF2 and modulates activity of NF- κ B, selected from the group consisting of

- (i) a cDNA sequence comprising the nucleotide sequence of SEQ ID NO:1;
- (ii) a cDNA sequence comprising the nucleotide sequence of SEQ ID NO:¹⁶ ~~3~~;
- (iii) a cDNA sequence comprising the nucleotide sequence of SEQ ID NO:4;
- (iv) a fragment of a sequence of (i)-(iii) which encodes a polypeptide that binds to TRAF2 and modulates the activity of NF- κ B;
- (v) a DNA sequence capable of hybridization to a sequence of (i)-(iv) under moderately stringent conditions and which encodes a polypeptide that binds to TRAF2 and modulates the activity of NF- κ B; and
- (vi) any DNA sequence other than those defined in (i)-(v) which encodes a polypeptide in accordance with claim 51.

Sub 11
--56. A DNA sequence in accordance with claim 55,
comprising the nucleotide sequence of SEQ ID NO:1 or SEQ ID
NO:4.

Sub E 4
--57. A DNA sequence in accordance with claim 55,
comprising the nucleotide sequence of SEQ ID NO:3.

Sub E 4
--58. A DNA sequence in accordance with claim 55,
comprising a DNA sequence encoding the protein NIK of SEQ ID
NO:7.

Sub E 4
Cont
--59. A DNA sequence encoding
(1) a polypeptide in accordance with claim 53, or
(2) a DNA sequence capable of binding to a sequence
of (1) under moderately stringent conditions and which encodes
a polypeptide that binds to TRAF2 and modulates the activity
of NF- κ B.--

Sub E 4
Delete claims 17-19 and substitute therefore new
claims 51-53 as follows:

Sub E 4
No: 6
--51. A polypeptide that binds to TRAF2 and
modulates the activity of NF- κ B, said polypeptide comprising:
a) the amino acid sequence of SEQ ID NO:2, an amino
acid sequence encoded by the nucleotide sequence of SEQ ID
NO:3, or the amino acid sequence of SEQ ID NO:5;
b) an amino acid sequence of a fragment of a), which
fragment binds to TRAF2 and modulates the activity of NF- κ B;

Sub H (cont'd)

c) an amino acid sequence of an analog of a) or b),
having no more than ten changes in the amino acid sequence of
a) or b), each said change being a substitution, deletion or
insertion of an amino acid, which analog binds to TRAF2 and
modulates the activity of NF- κ B; or
d) a derivative of a), b) or c) which binds to TRAF2
and modulates the activity of NF- κ B.

Sub C (cont'd)

--52. A polypeptide in accordance with claim 51,
wherein said polypeptide of (a) is the sequence encoded by the
nucleotide sequence of SEQ ID NO:3.

Sub B

--53. A polypeptide in accordance with claim 51,
wherein said polypeptide of (a) is NIK (SEQ ID NO:7).--

Claim 13, line 1, change "1" to --55--.

Rewrite claim 20 in amended form as follows:

Sub N

20. (Amended) A NIK [protein, isoforms, analogs,
fragments and derivatives thereof] polypeptide according to
claim [19] 53, wherein said [protein, isoforms, fragments and
derivatives have] polypeptide has at least part of the amino
acid sequence [depicted in Fig. 6] of SEQ ID NO:7.

Claim 22, lines 1-2, change "the TRAF-binding
protein, isoform, analog, fragment or derivative thereof" to -
a polypeptide--;

line 2, change "17" to --51--.

Rewrite claim 23 in amended form as follows:

23. (Amended) A method for the modulation or
mediation in cells of the activity of NF- κ B or any other
intracellular signaling activity modulated or mediated by
TRAF2 [or by other molecules to which a protein, isoform,
analog, fragment or derivative thereof according to claim 17
binds], said method comprising, treating said cells by
introducing into said cells one or more of said [protein,
isoform, analog, fragment or derivative thereof] polypeptide
in accordance with claim 51 in a form suitable for
intracellular introduction thereof, or introducing into said
cells a DNA sequence encoding said one or more [protein,
isoform, analog, fragment or derivative thereof] said
polypeptide in the form of a suitable vector carrying said
sequence, said vector being capable of effecting the insertion
of said sequence into said cells in a way that said sequence
is expressed in said cells.

Claim 24, lines 2-3, change "protein, isoform,
fragment, analog or derivative" to --polypeptide--.

Claim 27, line 3, change "TRAF2-binding protein" to
--polypeptide--;

line 4, change "1" to --51--.

Claim 29, lines 3-4, change "TRAF2-binding protein"
to --polypeptide--;

line 4, change "17" to -51--.

✓ claim 30, line 1, change "proteins" to --a polypeptide--;

✓ line 2, change "17" to --51--.

✓ claim 32, lines 2-3, change "TRAF2-binding proteins" to --polypeptide--;

✓ line 3, change "17" to --51--;

✓ lines 3-4, delete ", its biologically active fragments, analogs, derivatives or mixtures thereof".

✓ claim 33, lines 3-4, change "TRAF2-binding protein, isoform, active fragments or analogs" to --polypeptide--;

✓ line 4, change "17" to --52--.

Rewrite claim 34 in amended form as follows:

34. (Amended) A pharmaceutical composition for modulating the TRAF2 modulated/mediated effect on cells comprising as active ingredient, an oligonucleotide sequence encoding an anti-sense sequence of the [TRAF2-binding protein mRNA sequence] mRNA encoding a polypeptide according to claim [1] 51.

✓ claim 35, line 3, change "protein" to --polypeptide-- and change "17" to --51--;

✓ line 4, after "10" insert --(SEQ ID NO:3)--.

✓ claim 36, line 3, change "protein" to --polypeptide-- and change "17" to --51--.

Claim 38, line 3, change "18" to --52--.

Claim 39, line 4, change "19" to --53--.

Rewrite claim 40 in amended form as follows:

40. (Amended) A method for the prevention or treatment of a pathological condition associated with NF- κ B induction or with any other activity mediated by TRAF2 or by other molecules to which a [protein] polypeptide according to claim [17] 51 binds, said method comprising administering to a patient in need an effective amount of a [protein, isoform, fragment, analog or derivative thereof or a mixture of any thereof] polypeptide according to claim [17] 51, or a DNA molecule coding therefor, or a molecule capable of disrupting the interaction of said [protein or isoform, fragment, analog and derivative thereof or a mixture of any thereof] polypeptide according to claim [17] 51 with TRAF2 or any other molecule to which said [protein or isoform, fragment, analog and derivative thereof or a mixture of any thereof] polypeptide according to claim [17] 51 binds.

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Claim 43, line 1, change "protein" to
--polypeptide--;

Line 2, change "17" to --51--;
line 3, change "protein" to
--polypeptide--.

Claim 44, line 2, change "protein" to

--polypeptide-- and change "17" to --51--;

line 3, change "protein" to
--polypeptide--.

Rewrite claim 46 in amended form as follows:

46. (Amended) A method for identifying and producing
a ligand capable of modulating the cellular activity modulated
or mediated by a [protein] polypeptide according to claim [17]

51, comprising:

SUB F2
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a) screening for a ligand capable of binding to a
polypeptide comprising at least a portion of the NIK sequence
[depicted in Fig. 6] of SEQ ID NO:7;

b) identifying and characterizing a ligand, other
than TRAF2 or portions of a receptor of the TNF/NGF receptor
family, found by screening step to be capable of said binding;
and

c) producing said ligand in substantially isolated
and purified form.

Claim 47, line 4, delete "depicted in Fig. 6" and
insert therefor --of SEQ ID NO:7--.

Claim 49, line 2, change "protein" to
--polypeptide--;

line 3, change "17" to --51--;
line 5, change "protein" to
--polypeptide--; change "17" to --51--.